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AUTHOR KILPATRICK, GORDON
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ABSTRACT

A TEACHING LOAD MEASUREMENT FORMULA SEEKS TO EQUALIZE THE LOAD CREDIT GIVEN TC TEACHERS OF VARIOUS KINDS OF CLASSES (SUCH AS LECTURES, LABORATORIES, PHYSICAL EDUCATION) IN TERMS OF NUMBER OF PREPARATIONS, COURSE DIFFERENCES, CLASS SIZE, CLERICAL ASSISTANCE, STUDENT ADVISING, COMMITTEE WORK, AND OVERLOAD. THE FORMULA EXPRESSES EACH TEACHER'S WORK LOAD AS CLOCK HOURS PER WEEK. THE HOURS ARE COMPUTED AND RECORDED ON A SPECIAL TALLY SHEET. IN THIS FORM, THE TEACHING LOAD CAN BE UNDERSTOOD BY THE PUBLIC AND MAY HELP TO CHANGE THE ATTITUDE OF CRITICS WHO FEEL THAT TEACHERS HAVE SHORTER HOURS THAN OTHER WORKERS. FACULTY TEACHING LOADS MAY BE COMPARED AT DIFFERENT SCHOOLS USING THE SAME METHOD. (MS)

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A CONSIDERATION OF TEACHING LOAD IN AMERICAN JUNIOR COLLEGES

by

Gordon Kilpatrick

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University of California, Los Angeles

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THE PROBLEM

The problem of measuring teaching load has attracted much attention in American education for several reasons:

(1) To apprise the board members and patrons of the amount of work teachers are doing.

(2) To secure a just distribution of teaching load.

(3) To help administrators know just how much (or how little) they are demanding of teachers.

(4) To protect teachers from unfair demands on their time.

(5) To protect new teachers from unduly heavy loads. (10)

The studies conducted in the last fifty years center about three main topics: (1) Development of formulas for measurement of teaching load, (2) studies of the various amounts of time the different departmental rigors demand of a teacher, sometimes incorporated into a formula, and (3) studies of the actual amount of time required of a teacher by his job.

Of the many formulas developed, more seem capable of responding to all of the five reasons named above. Formula-derived measurements expressed in "points" or "load factors" may achieve equalization of teaching load in part, but do little to apprise either the teacher or the public of the actual amount of work he is performing and thus may fail to protect the whole group of teachers from unfair demands on their time.

"Subject coefficients" have been developed which allow for the various amounts of time and energy differentially demanded by the differing rigors of different departments. If we accept the premise derived by Douglass that band and German are equal in their demands which are only 90% of the demands of biology and chemistry (6, 7), then must we assume that the intradepartmental course demands are equal, such as Biology 1A and Biology 2A, or Chemistry 1A, Chemistry 2A, and Chemistry 8? The English composition instructor who must read close to one hundred weekly themes or essays would likely gladly trade his work load for that of the literature instructor in the same department.

Studies of the actual time demands placed on teachers by their jobs not only hold the most promise in revealing equalization or lack thereof among teachers, but they also allow a basis of comparison between the average work weeks of teachers and non-educators. Unfortunately the larg time gaps between comparable studies reported in the literature, and lack of consistency in measurement among the reported studies renders them virtually useless for establishing trends. It was noted, however, that all reported work-weeks for teachers of all levels above elementary were, <u>without exception</u>, well above the average weekly hours of retail trade workers as reported by the U. S. Department of Labor (20:694).

It remains for someone to develop a teaching load measurement formula which not only incorporates course differences and measures in terms of actual hours demanded by the job, but also takes into account the other factors which contribute to teaching load, namely class-size, number of different preparations, extracurricular duties, and assistance available. To develop such a formula is the purpose of this paper.

Historically, junior colleges have ignored formulas, probably because most of them were developed for high school use. Not being research-oriented and thus failing to find a suitable model to emulate at the university or four-year college level, junior colleges resorted to development of their own measuring parameters. Originally the full student load of fifteen credit hours was considered to constitute full faculty load as well. As the fact was recognized that credit hours gave no realistic measure of teacher time and energies required, contact hours gradually assumed prominence as a measuring device.

During both of the above phases, controversy raged principally between the teachers of science and the higher echelons regarding the load credit to be given to laboratories. This has seldom been a problem at the university level since teaching assistants conduct the labs. Unfortunately, credential requirements in most states prevent this at the junior college level. Boards and administrators traditionally have considered laboratory periods as classes requiring little preparation and energy and therefore have credited the science teachers load-wise with only fractional credit for an hour spent in lab compared to an hour spent lecturing. Teachers of science thus find themselves working many additional hours for fractional pay. The American Chemical Society went on record in 1932 as supporting the equality of lecture time and laboratory time for load measuring purposes. The load measuring method presented herein seeks to alleviate this problem.

The emergence of the contact hour as a prominent method of measuring teaching load gave some recognition to the differing demands by different departments. This was essentially oriented toward exploiting the time of those teachers of courses requiring laboratory purportedly requiring

less teacher energy. This led to two general types of policy statements. Typical of one type is that full-time teaching load shall consist of 15±1 hours lecture, or 20±1 hours laboratory. (8) Typical of the other type is, "The teaching load for a full-time faculty member at Orange Coast College is built around a fifteen hour per week classroom assignment." (17:67) The second type is usually followed by explanation of the rationale for assigning teachers to more than 15 hours of classroom duty per week, for example that 1.5 hours of laboratory is equivalent to 1 hour of lecture.

It is interesting that both policy statements focus on 15 lecture-type classroom hours as constituting a full load. The time honored ratio of one credit hour for one classroom hour per week has relevance here in light of the statement in the State of California's 1965 Education Code that "One credit hour of junior college work is approximately three hours of recitation, study, or laboratory work per week...." (19) Note that no mention is made as to whether this statement applies to teachers or students. Therefore, 15 lecture hours of load indicated a 45-hour work week for the teachers involved. Previous studies of time actually spent in school-related work by teachers lend support to this conclusion. (3, 5, 9, 13, 14, 15, 16, 18) The same conclusion is reached if we assume one-hour preparation and one-hour evaluation spent outside of class for each hour actually spent in the classroom. It is difficult to understand why librarians, who are paid the same as the teachers, commensurate with education and experience, are required to work only 35 to 40 hours per week unless the teachers are donating the extra five to ten hours for the freedom to come and go as they please outside of class hours

and even take their work home with them. That this freedom of mobility is not enjoyed on campuses which mandate the teachers' presence on campus a minimum of five or six hours per school day makes the discrepancy less comprehensible. To require teachers to carry a load equivalent to working forty-five hours per week while work weeks in other professions are decreasing is another comcept whose rationale is difficult to grasp. Possibly John Hicks reached the proper conclusion. He refers to Thorstein Veblen's "conspicuous waste" exemplified by the rich indicating their status by ostentatiously doing nothing. He predicts that conceivably as leisure time increases for blue collar workers, the converse will be true: professors may perform "conspicuous work to indicate their status." (11:6)

The attempted correlation between teaching load and 15 credit hours begins to fail as different types of teaching activities are examined. Consider an instructor of physical education as an extreme case: he would have to meet classes 60 hours per week to comprise 15 units of load. That there is little if any correlation between credit hours and demands upon the teacher has been recognized by most policy makers. A vague correlation is assumed when statements are made to the effect that "When classes decrease in credit-to-hours value the assumption is that the out of class time of the instructor also decreases." (17:68) This accounts for the establishment of the differing ranges of clock-hour teaching load according to department in which the instructor teachers. No greater detailed distinction beyong departmentalization is made for the differing demands of different courses.

Neither of the two types of policy statements clarify the distinction which could and should be made regarding the percentage of a teacher's load which is laboratory and the percentage which is lecture. Consider the extreme cases. Presumably, only one hour of laboratory per week may transfer a previously all-lecture, 15-hour load instructor into the lecture-laboratory measurement of teaching load under which he may inherit from two to seven additional hours of classroom assignment (which may be ALL lecture). This instructor would be greatly overloaded. Meanwhile, at the other extreme, the instructor who has 22 hours of 100% laboratory, has little demand placed upon his energies. Since one of the purposes of measuring teaching load is equalization, it would seem logical to take into account the various percentages of time the various teachers actually spend in classroom-related activities. The evident distinction here between lecture and laboratory is only the first step; the time actually spent in preparing for and evaluating various class-related activities, regardless of their nature, should be allowed for in measuring teaching load. For example, it probably will take longer for preparation of a one-hour lecture in organic chemistry than to prepare to meet a one-hour physical education class which plays volleyball. Likewise the chemistry instructor will likely test frequently and will spend more after-class hours grading papers than will the physical education instructor. The conscientious chemistry instructor will likely also prepare a brief pre-laboratory lecture and later must grade the laboratory quiz and/or lab report. Whether the lab is two hours long or three hours long makes little difference in the time and energy spent by the instructor outside of class in preparation and evaluation.

That there is a correlation between class size, work load, and quality of instruction is widely accepted but is in reality only an assumption according to Richard Axt. (1:12) That quality does indeed decline with a severely overloaded teacher is hardly debatable, especially if the teacher allows his health to suffer neglect rather than his immediate duties to his students. This could likely be the result of lack of sleep from late hours spent grading his many papers. (Perhaps the less conscientious teacher would give fewer tests and assign less homework.) The sleepy teacher likewise fails to stimulate his students due to his lack of vigor and enthusiasm.

Even under supposedly equitable work loads, different teachers will expand differing amounts of energies due to differing teaching habits, efficiencies, and work rated characteristic of the individuals involved. The difficulty of measurement of these intangibles and potential work load inequities that would result if they were allowed for precludes their use in teaching load determination.

RECOMMENDED GUIDELINES FOR A NEW METHOD OF MEASUREMENT

Since existing policies lack the detail adequate to implement the equalization possible intended by the policies' authors, it is recommended that new policy be written and adopted, rather than complicate existing policy with qualifiers and amendments. The new policy should not resemble existing policies too closely, else comparisons leading to confusion between new and old result. Also, if the new method of load measurement were couched in the realistic view of what instructors <u>actually</u> do, partisan groups would have a difficult time decrying deflation of presently inflated shibboleth of what constitutes their own teaching load.

The new method of measurement should make an attempt to equate the teacher's work week with that in other professions. The 35 to 40-hour work week prevailing in the United States would seem a logical target for the initial policy. As the current trend of work week reduction continues in other occupations, (see figure 1) a consideration of reduction of teachers' work week should be an inevitable outcome. In order to guarantee comparison between the teachers' work week and that of non-teaching professionals, the unit of measurement of teaching load should logically be clock hours. The semantics of the 35 to 40-hour work week for teachers should not mislead the reader to believe an increase in teaching load is advocated. Rather, a decrease from the approximately 45+ hours per week actually spent in school-related activities by many teachers is advocated. The semantics of measuring teaching load with a basis of 40 clock hours per week would do much to assuage uninformed critics who are not aware of outside-of-class duties beyong the 15 or so hours per week actually spent in the classroom.

Recognition should be given to the other factors which constitute teaching load as these effect the actual amount of time demanded by the school of the instructor. Selected factors which are discussed briefly below include: number of preparations, course differences, class size, availability of clerical assistance, the number of student advisees assigned to the instructor, and committee work.

The base to which these factors shall apply shall be the number of hours actually spent in class, regardless of whether the class is a lecture or laboratory. No distinction is made between 50-minute class periods and one clock hour since the teacher frequently uses the usual

Figure 1 - Average Weekly Hours - Retail Trade Production Workers

Source: U. S. Department of Labor, Employment and Earning Statistics of the United States 1909-65. (Washington: Government Printing Office, 1965), p. 694.

10 minutes following classes for post-class discussion and consultations with students if not traveling to his next class. The shortness of the 10-minute break precludes personal endeavors and thus could hardly be called the teacher's "own time". Multihour laboratories usually meet continuously without break, 60 minutes per hour, except the last hour of the period is only 50 minutes long to allow teachers and students alike time to move to their next classes.

Number of preparations. Let us assume that preparation of a lecture, test, and/or other activity to be presented in a one-hour lecture-type class or multihour laboratory session requires one hour of preparation. Let us assume further that presentation of the same lecture, test, or activity to a duplicate class or lab session requires no additional preparation. Actually, Douglass (6,7) and others found that original preparations averaged about 0.8 hour and duplicate preparations more than zero but less than 0.8 hour. The flat one-hour allowance per original class serves somewhat as a cushion (and possible well-deserved reward) for the teacher who is assigned many preparations, while extracting more work from the teacher who previously languished under only two or so preparations.

Course differences. A teacher who gives a test every week or so may spend a considerable amount of time grading the papers. Homework assignments submitted for his perusal may add to his evaluative load. Machine scored tests which require virtually no grading time require additional time for preparation of the multiple

choices. Thus machine scoring of tests would require no correction to the time attributed to evaluation if other type tests were given. It is in the evaluation area that differences between courses has its greatest effect. The composition teacher must read many essays carefully, grading content, punctuation, capitalization and structure, while the physical education teacher may have objective tests to grade only once or twice per term when he tests on rules, etc. Douglass proposed a set of subject coefficients to be applied to the teacher's overall load, depending upon the department in which the teacher was teaching. (6,7) Douglass' coefficients are inappropriate here since it is recommended that the course differences be applied to the evaluative load only. The term course differences is used here since differentiation by department only does not allow for the vastly varying demands of courses within a department. A number of hours allowed for evaluation for each course could be developed initially by estimate and improved through time as actual practice dictates revision is needed to make the estimate more realistic. Itis not the intent here to allow for individual differences of the teachers, but for differences in course demands. The inefficient teacher will still not have enough time and will claim to be over-worked. The efficient teacher will have no complaints if adequate time for evaluative purposes is accurately and fairly assigned.

Class size. For teaching load purposes, it seems immaterial whether a lecture is prepared and presented to a class of 3 or 300. On the other hand, the evaluation aspect of teaching load is affected appreciably by class size. Ten "extra" students in each of three

classes equals the evaluative load of one class of thirty. Once a standard class size for each course is established (probably by board action), "extra" students should be allowed for in measuring class load, the average overage as a percentage being applied to evaluation time only.

Clerical assistance. Districts should seriously consider providing clerical assistance to their teachers. Many teachers would gladly welcome an additional class to teach if they could be relieved of an appreciable portion of their routine clerical duties. This would serve two functions: (1) alleviation of the purported teacher shortage by gaining increased output from an already credentialed teacher, and (2) gaining 20% increased output per teacher per additional class at the minor cost of a part-time non-certificated clerk. Where competent clerical assistance is provided, its acceptance should be at the option of the teacher on an hour-for-hour substitution basis of up to 50% of the teacher's evaluation time for service rendered in grading papers or in routine duties such as typing, duplicating, etc. If student assistance is provided for clerical purposes at district expense, perhaps substitution of two hours of student time per hour of instructor time subject to the same limitations would be appropriate. Presumably these assistants will be used to grade objective tests or routine homework assignments unsuited to machine scoring (short-answer tests, mathematical procedures, etc. where recall rather than recognition is desired); they would not be used to grade items requiring the exercising of judgment, such as essays, themes, term papers, etc.,

the latter being appropriately graded only by the teacher himself. It is not the intent to take advantage of the teacher, but merely to use his competencies more efficiently than is now the case, keeping his load within the 35 to 40 clock-hour limit previously established.

Student advising. If 30 minutes is spent per student advisee, thirty-six student advisees would represent one hour work per week during the 18-week semester. Therefore, a weekly load allowance of one hour per thirty-six assigned student advisees should be made. Admittedly, the load is not level during the semester, but would be self-compensating.

Committee work. Members of committees which meet regularly and faculty senators should have the appropriate average weekly expenditure allowed for in comprising their 40 clock-hour per week work load.

Overload. Although the primary purpose of measuring faculty load is equalization, a secondary purpose is elimination of overload where it is recognized to exist. Even in districts where compensatory pay is given for overload, the conscientious teacher who conducts his class sleepily due to late hours spent grading the extra papers resulting from his overload is shortchanging his students and is not fulfilling effectively his primary mission to the school. This type of overload is a false economy no school sincerely dedicated to its students can realistically afford. On the other hand, some teachers' energies and manner of teaching will permit them to handle overloads quite effectively. Rather

than deprive them of the opportunity of practicing the art for which they are trained, namely teaching, only to have them accept a second job doing something else for much less pay with hours that produce a sleepy teacher anyway, it would be wise to allow him to teach overload. An exercise of reasonable amount of judgment and watchfulness will suffice to guide prudence here. Sometimes, work loads cannot be prepared approaching the established level without inadvertently going over an hour or two. Heavy registration may have placed more students in the classes than anticipated. How shall the teacher be compensated for his overload after all other considerations (i.e. clerical assistance) have been applied? Since one hour overload per week for one 18-week semester amounts to 18 hours and since 18 hours is equivalent to 10.4% of monthly work (based on 4 1/3 weeks per month of 40 clock-hours work per week), a single payment at the end of each semester equal to 10.4% of the teacher's monthly salary for each hour overload carried throughout the semester would be fair.

Other considerations. The factors discussed above as they relate to the method proposed border very closely on policies which may or could exist in the areas of:

(1) minimum number of hours required to be spent on campus

(2) scheduling of office hours

(3) substitute pay for intramural substitution.

Discussion of the ramifications of the method proposed herein upon those policies is beyond the intended scope of this paper, but is

mentioned to make the reader aware that definite ramifications will exist as a consequence if the proposed policy is adopted.

Provision has been made for every factor herein named that contributes to teaching load in the measurement method to be described.

SUMMARY OF GUIDELINES

1. That teachers be assigned to 35 to 40 clock-hours of teaching load per week, the exact level being established district-wide by the board.

2. That the teaching load be subdivided into clock hours devoted to:

   a. Preparation
   b. Actual class time
   c. Evaluation
   d. Student advising & Faculty Senate
   e. Committee meetings
   f. Sponsoring student activities
   g. Travel time to off-campus classes
   h. Required professional reading
   i. Research where approved
   j. Additional preparation required for a new course, revision of an existing course, and/or new assignment

   and allowances for class size and clerical assistance.

3. That a number of hours measured to the nearest quarter-hour be established for each course according to preparation, actual class time, and evaluation. These hours should be based insofar as possible on reasonable time <u>actually spent</u> in the activities described, and subject to revision from time to time as practice indicates the need for revision.

4. That no preparation time be allowed for duplicate classes.

5. That clerical assistance be provided subject to the acceptance of the teacher involved, but substituting on an hour-for-hour basis against the teacher's load creditable toward his 35 to 40 clock-hour per week load requirement for classified clerical assistance and on two hours for one basis for student clerical assistance.

6. That no distinction be made between 50-minute class periods and one clock hour.

7. That no distinction other than length of time spent in class be made between lecture-type classes and laboratory sessions.

8. That overload be avoided if possible, but if allowed through prudent exercise of judgment or unavoidably, the teacher be compensated by a single semester-end payment to the extent of 10.4% of his monthly salary for each hour overload averaged throughout the semester.

It is recommended that a computational method which sums the various contributions made to teaching load by various assignments and other duties be used to measure teaching load. Thirty-five to forty clock-hours per week (the exact load to be established by the board) should be the basis. Teaching load may be alleviated in part by clerical assistance. A suggested instrument for determining teaching load by the proposed method after establishment of operational parameters is attached as an appendix to this paper.

RAMIFICATIONS

Advantages. Implementation of the proposal method would not only allow equalization of work load among faculty members of the various departments intramurally, but it would also allow comparison of teaching load with faculties of other schools using the same method. In addition, since clock-hours are used, the teachers' work load may be communicated to a public of mostly non-educators expressed in terms they can understand. This would settle the minds of critics who believe teachers are currently being paid for "banker's hours" only. Furthermore comparison of length of the teacher's work-week with other professions is possible due to the common measurement term.

Using this method, it is not necessary to assign reduced overall loads to part-time administrators. Agreed, their assignment would likely devote fewer hours to actual classroom teaching, but they too would put in their 35 to 40 clock-hours per week, apportioned a bit differently, containing more standing committee assignments and time for administrative responsibilities.

Disadvantages. Since the relative and absolute number of hours assigned to the three aspects of each course (preparative, contact, and evaluative) is decided locally, comparison between schools would be difficult unless standard guidelines were established. Likewise, the unconscientious teacher would be able to pad the numbers somewhat on the initial determination of time requirements of the course, but this would be reduced in effect for those courses having more than one teacher unless a concerted effort were expended. This further amplifies the required emphasis to be placed on what teachers actually do. The fact that habits and courses do indeed change will demand flexibility but at the same time may open the door to constant pressures on the administration to increase the number of hours allowed for the various aspects of such-and-such course.

TEACHER LOAD DETERMINATION
(All times measured in average number of clock-hours per week)

Semester: ☐ Fall 19__
☐ Spring 19__

Teacher's Name_____

a. Course (List laboratories and seminars separately	b. Standard Class Enrollment	c. Actual Enrollment	d. Percentage Overenrollment	e. Preparation Time Duplicate Classes=0	f. Actual Time in Class	g. Evaluation Time	h. Column d times Column g	TOTAL of columns e,f,g, & h
Committee assignments:								
TOTALS								

Number of student advisees ___ ÷ 36 =	
SUBTOTAL	
Subtract Clerical Assistance Adjustment	-
TEACHING LOAD	
Subtract	-40.00
OVERLOAD	

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